

AMENDMENTS

1. (Currently amended) A method of diagnosing an increased probability of breast cancer in a subject, the method comprising comparing the expression pattern of CXCL9 or FLJ20174 nucleic acid or gene product in a sample from a subject with the expression pattern of CXCL9 or FLJ20174 nucleic acid or gene product in one or more samples from one or more non-cancerous tissues, wherein an upregulation in the expression pattern of CXCL9 or FLJ20174 in the samples is indicative of an increased probability of breast or ovarian cancer in the subject.
2. (Previously presented) The method of claim 1, wherein the sample from the subject is derived from the same tissue type as the one or more samples from a non-cancerous tissue.
3. (Previously presented) The method of claim 2, wherein the one or more samples from a non-cancerous tissue are also derived from the subject.
4. (Previously presented) The method of claim 1, wherein the difference in the expression pattern is an upregulation of the expression level of CXCL9 or FLJ20174 nucleic acid.
5. (Previously presented) The method of claim 4, wherein the difference in the expression pattern is an upregulation of at least two fold over the level of expression of CXCL9 or FLJ20174 nucleic acid in the one or more non-cancerous tissue samples.
6. (Original) The method of claim 1, wherein the sample comprises cells obtained from the subject.
7. (Previously presented) The method of claim 6, wherein the cells are obtained from breast or ovarian tissue.

8. (Original) The method of claim 1, wherein the sample comprises serum, nipple aspirate or ductal fluid obtained from the subject.
9. (Previously presented) The method of claim 1, wherein the expression pattern of CXCL9 or FLJ20174 is determined by detecting the presence in the sample of a nucleic acid comprising 30 or more contiguous nucleotides of SEQ ID NO:1, SEQ ID NO:3 or SEQ ID NO:4.
10. (Previously presented) The method of claim 9, wherein the nucleic acid is an mRNA or hnRNA.
11. (Previously presented) The method of claim 9, wherein the nucleic acid is a cDNA.
12. (Previously presented) The method of claim 9, wherein the step of detecting further comprises amplifying the nucleic acid.
13. (Withdrawn) The method of claim 1, wherein the expression pattern CXCL9 or FLJ20174 in the samples is assessed by detecting the presence in the samples of a transcribed polynucleotide which specifically binds with SEQ ID NO:1, SEQ ID NO:3 or SEQ ID NO:4 or specifically binds with a portion of said transcribed polynucleotides, under stringent hybridization conditions.
14. (Previously presented) The method of claim 1, wherein the difference in the expression pattern is an upregulation of the expression level of CXCL9 or FLJ20174 gene product.
15. (Withdrawn) The method of claim 1, wherein the expression pattern of CXCL9 or FLJ20174 gene product is determined by detecting the presence in the samples of a protein, polypeptide or protein fragment of SEQ ID NO:2, SEQ ID NO:5 or SEQ ID NO:6.

16. (Withdrawn) The method of claim 15, wherein the presence of said protein, polypeptide or protein fragment is detected using a reagent which specifically binds with said protein, polypeptide or protein fragment.
17. (Withdrawn) The method of claim 16, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.
18. (Withdrawn) A method of assessing the prognosis of a breast or ovarian cancer subject, the method comprising comparing the expression pattern of CXCL9 or FLJ20174 in a sample from a subject with the expression pattern of CXCL9 or FLJ20174 in samples from one or more subjects suffering from a known type of breast or ovarian cancer and determining the prognosis based on the comparison.
19. (Withdrawn) The method of claim 18 wherein the expression pattern is assessed by determining the level of expression.
20. (Withdrawn) The method of claim 18 wherein the expression pattern is assessed by comparing expression patterns of CXCL9 or FLJ20174 in different tissue samples from the same subject.
21. (Withdrawn) The method of claim 18 wherein the expression pattern is assessed by comparing the level of post-translational modification of CXCL9 or FLJ20174.
22. (Withdrawn) The method of claim 18, wherein the sample comprises cells obtained from the subject.
23. (Withdrawn) The method of claim 22 wherein the cells are obtained from breast or ovarian tissue.
24. (Withdrawn) The method of claim 18, wherein the sample comprises serum, nipple aspirate or ductal fluid obtained from the subject.

25. (Withdrawn) The method of claim 18, wherein the level of expression of CXCL9 or FLJ20174 is determined by detecting the presence in the sample of a nucleic acid comprising 10 or more contiguous nucleotides of SEQ ID NO: 1, SEQ ID NO:3 or SEQ ID NO:4.
26. (Withdrawn) The method of claim 25, wherein the level of expression of said marker genes in the sample is assessed by detecting the presence in the sample of a transcribed polynucleotide encoded by SEQ ID NO: 1, SEQ ID NO:3 or SEQ ID NO:4 or a portion of said transcribed polynucleotides.
27. (Withdrawn) The method of claim 25, wherein the transcribed polynucleotide is an mRNA or hnRNA.
28. (Withdrawn) The method of claim 25, wherein the transcribed polynucleotide is a cDNA.
29. (Withdrawn) The method of claim 25, wherein the step of detecting further comprises amplifying the transcribed polynucleotide.
30. (Withdrawn) The method of claim 18, wherein the level of expression of CXCL9 or FLJ20174 in the sample is assessed by detecting the presence in the sample of a transcribed polynucleotide which specifically binds with SEQ ID NO: 1, SEQ ID NO:3 or SEQ ID NO:4 or specifically binds with a portion of said transcribed polynucleotides, under stringent hybridization conditions.
31. (Withdrawn) The method of claim 18, wherein the level of expression of CXCL9 or FLJ20174 is determined by detecting the presence in the sample of a protein, polypeptide or protein fragment of SEQ ID NO:2, SEQ ID NO:5 or SEQ ID NO:6.

32. (Withdrawn) The method of claim 31, wherein the presence of said protein, polypeptide or protein fragment is detected using a reagent which specifically binds with said protein, polypeptide or protein fragment.

33. (Withdrawn) The method of claim 30, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

34. (Withdrawn) A method for monitoring the progression of breast or ovarian cancer in a subject, the method comprising:

- determining in a sample from a subject at a first point in time the expression pattern of CXCL9 or FLJ20174;
- repeating step a) at a subsequent point in time; and
- comparing the expression pattern of the CXCL9 or FLJ20174 determined in steps a) and b), and therefrom monitoring the progression of breast or ovarian cancer.

35. (Withdrawn) The method of claim 34 wherein the expression pattern is assessed by determining the level of expression.

36. (Withdrawn) The method of claim 34 wherein the expression pattern is assessed by comparing expression patterns of CXCL9 or FLJ20174 in different tissue samples from the same subject.

37. (Withdrawn) The method of claim 34 wherein the expression pattern is assessed by comparing the level of post-translational modification of CXCL9 or FLJ20174.

38. (Withdrawn) The method of claim 34 wherein the cells are obtained from breast or ovarian tissue.

39. (Withdrawn) The method of claim 35, wherein the sample comprises serum, nipple aspirate or ductal fluid obtained from the subject.

40. (Withdrawn) The method of claim 34, wherein between the first point in time and the subsequent point in time, the subject has undergone surgery to remove breast or ovarian tissue.

41. (Withdrawn) A method of assessing a test compound as an effector of breast or ovarian cancer in a subject, the method comprising

- determining the expression pattern of CXCL9 or FLJ20174 in a first tissue sample from a subject;
- exposing one or more second tissue samples from the same subject to one or more test compounds;
- determining the expression pattern of CXCL9 or FLJ20174 in the one or more tissue samples that have been exposed to one or more test compounds; and
- comparing the expression pattern of CXCL9 or FLJ20174 in the first and second tissue samples, wherein a change in the expression pattern of CXCL9 or FLJ20174 in the second tissue sample versus the first tissue sample indicates that the test compound is an effector of breast or ovarian cancer in a subject.

42. (Withdrawn) The method of claim 41 wherein the first tissue sample exhibits an abnormal CXCL9 or FLJ20174 expression pattern and wherein the test compound is a therapeutic agent.

43. (Withdrawn) The method of claim 41 wherein the test compound is assessed to determine the breast or ovarian cell carcinogenic potential of the test compound.

44. (Withdrawn) A kit for diagnosis of breast or ovarian cancer, the kit comprising reagents for assessing the expression pattern of CXCL9 or FLJ20174 in a sample from a subject.

45. (Withdrawn) The kit of claim 44 wherein the kit comprises a reagent which specifically binds with a transcribed polynucleotide of SEQ ID NO: 1, SEQ ID NO:3 or SEQ ID NO:4.

46. (Withdrawn) The kit of claim 44 wherein the kit comprises a reagent which specifically binds to a protein, polypeptide or protein fragment of SEQ ID NO:2, SEQ ID NO:5 or SEQ ID NO:6.

47. (Withdrawn) A kit for assessing the suitability of one or more test compounds for treating breast or ovarian cancer in a subject, the kit comprising: a) one or more test compounds; and b) a reagent for assessing the expression pattern of CXCL9 or FLJ20174.

48. (Withdrawn) The kit of claim 43 47 wherein the kit comprises a probe which specifically binds with a transcribed polynucleotide of SEQ ID NO:1, SEQ ID NO:3 or SEQ ID NO:4.

49. (Withdrawn) The kit of claim 47 wherein the kit comprises a probe which specifically binds to a protein, polypeptide or protein fragment of SEQ ID NO:2, SEQ ID NO:5 of SEQ ID NO:6.

50. (Withdrawn) A therapeutic agent for the treatment of breast or ovarian cancer comprising an agent that specifically binds to a CXCL9 or FLJ20174 gene product.

51. (Withdrawn) The therapeutic agent of claim 50 wherein the agent specifically binds to a protein, polypeptide or protein fragment of SEQ ID NO:2, SEQ ID NO:5 or SEQ ID NO:6.

52. (Withdrawn) The therapeutic agent of claim 51 wherein the agent is an antibody, an antibody derivative, and an antibody fragment.

53. (Withdrawn) The therapeutic agent of claim 57 wherein the agent specifically binds with a polynucleotide of SEQ ID NO:1, SEQ ID NO:3 or SEQ ID NO:4.
54. (Withdrawn) The therapeutic agent of claim 53 wherein the agent is an antisense nucleic acid.
55. (Withdrawn) The therapeutic agent of claim 53 wherein the agent is an RNA interference oligonucleotide.
56. (Previously presented) A method of assessing breast or ovarian cancer in a subject, the method comprising: determining the expression pattern of CXCL9 or FLJ20174 nucleic acid or gene product in a first sample from a subject: wherein the first sample is known or suspected to include cancerous cells; determining the expression pattern of CXCL9 or FLJ20174 nucleic acid or gene in a second sample, wherein the second sample is a breast cancer, ovarian cancer or normal tissue sample; and comparing the expression patterns from the first sample and the second sample to evaluate the cancerous state of the first sample relative to the second sample.
57. (Withdrawn) A therapeutic agent for the treatment of breast or ovarian cancer comprising an agent that specifically binds to a CXCL9 or FLJ20174 nucleic acid.
58. (Currently amended) The method of claim 56, wherein the assessment is diagnosing an increased probability of breast cancer in a subject, the method comprising comparing the expression pattern of CXCL9 or FLJ20174 nucleic acid or gene product in the first sample from a subject with the expression pattern of CXCL9 or FLJ20174 nucleic acid or gene product in the second sample, wherein the second sample is a non-cancerous sample, and wherein an upregulation in the expression pattern of CXCL9 or FLJ20174 in

the samples is indicative of an increased probability of breast or ovarian cancer in the subject.

59. (Withdrawn) The method of claim 56 wherein the assessment is determining the prognosis of a breast or ovarian cancer subject, the method comprising comparing the expression pattern of CXCL9 or FLJ20174 in the first sample derived from a first subject with the expression pattern of CXCL9 or FLJ20174 in a second sample from a second subject suffering from a known type of breast or ovarian cancer and determining the prognosis based on the comparison.
60. (Withdrawn) The method of claim 56 wherein the assessment is monitoring the progression of breast or ovarian cancer in a subject, the method comprising:
 - a) determining in a first sample derived from a subject at a first point in time the expression pattern of CXCL9 or FLJ20174;
 - b) determining in a second sample derived from the subject at a subsequent point in time the expression pattern of CXCL9 or FLJ20174; and
 - c) comparing the expression pattern of the CXCL9 or FLJ20174 determined in steps a) and b), and therefrom monitoring the progression of breast or ovarian cancer.
61. (Previously presented) The method of claim 1, wherein the expression pattern of FLJ20174 is determined by detecting the presence in the sample of a nucleic acid consisting of SEQ ID NO:3 or SEQ ID NO:4.
62. (Previously presented) The method of claim 1, wherein the expression pattern of FLJ20174 is determined by detecting the presence in the sample of a nucleic acid comprising 25 or more contiguous nucleotides of SEQ ID NO:3 or SEQ ID NO:4.

63. (Previously presented) The method of claim 1, wherein the expression pattern of FLJ20174 is determined by detecting the presence in the sample of a nucleic acid comprising 20 or more contiguous nucleotides of SEQ ID NO:3 or SEQ ID NO:4.
64. (Previously presented) The method of claim 1, wherein the expression pattern of FLJ20174 is determined by detecting the presence in the sample of a nucleic acid comprising 15 or more contiguous nucleotides of SEQ ID NO:3 or SEQ ID NO:4.
65. (Previously presented) The method of claim 1, wherein the expression pattern of FLJ20174 is determined by detecting the presence in the sample of a nucleic acid comprising a naturally-occurring allelic variant of SEQ ID NO:3 or SEQ ID NO:4.